

NARRATIVE REPORT FOR
SULLYS HILL NATIONAL GAME PRESERVE
AND
EASEMENT REFUGES OF DISTRICT NO. 2
CALENDAR YEAR 1965

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF SPORT FISHERIES AND WILDLIFE
FISH AND WILDLIFE SERVICE

SULLYS HILL NATIONAL GAME PRESERVE
FORT TOTTEN, NORTH DAKOTA

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I. GENERAL

A. Weather Conditions

	<u>Month</u>	<u>Precipitation</u>		<u>Max.</u>	<u>Min.</u>
		<u>Normal</u>	<u>Snowfall</u>	<u>Temp.</u>	<u>Temp.</u>
January	.17	.53	2.7	29	-34
February	.01	.37	.1	44	-24
March	.19	.77	2.5	42	-15
April	1.58	1.15	8.6	69	22
May	3.07	2.11	T	85	26
June	1.64	3.36	-	85	42
July	5.02	2.57		89	41
August	1.24	2.18		97	43
September	5.24	1.70		70	20
October	.51	1.07	-	73	24
November	.50	.68	6.3	71	-5
December	.51	.49	7.4	49	-15
Annual Totals	19.68	16.98	27.6	Extremes 97	-34

Weather observations in the preceding table were made at the cooperative weather station at KDLR radio station in Devils Lake.

As can be seen from the table, we started the year with three very dry months yet ended with above normal precipitation for the year at Devils Lake. Above normal precipitation and cold weather during April and in May delayed seeding. Above normal precipitation in July insured the maturing of a bumper crop of grain and also prevented hay harvest. Above normal rainfall in September delayed the harvest of a bumper grain crop and contributed to the lowering of its quality in the swath.

January temperatures averaged 6.6° below normal. February was about normal and the snow cover decreased from 11 inches at the start to 4 inches at the close due to thawing daytime temperatures experienced on the 19th and 20th and again on the 26th and 27th. March was cold averaging -6.5° below normal. Sub zero temperatures were recorded during the 16th to the 25th. This followed thawing temperatures from the 4th to the 10th which disposed of snow cover. April temperatures were about normal. For the first time in six months, precipitation was above normal!

May started out warm with a week of temperatures in the 60's to the 80's. Night temperatures were freezing or near freezing on all but six days as May tried to shake winters' grip. Below normal temperatures during the 26th to 28th frosted tender garden plantings and fields of corn. Some grain and even grass and trees frosted in low spots.

June temperatures were about normal but July was below normal as was August. Light frost on the 28th nipped tender garden vines such as cucumber and squash and frosted the low spots in nearby corn fields. Light spot frost was again experienced on September 5th and 10th with killing frosts and light snow flurries during the September 24 to 26 period. October temperatures were near normal with some real fine "Indian summer" weather that extended into November. December was mild with temperatures averaging 7.3° above normal.

B. Habitat Conditions

(1) Water. All remaining winter snow accumulation left with the March 5-10 thawing period. There was little run-off from this at the preserve. It was immediately sponged up by dry, frost free soil. Some run-off was experienced at the preserve from the 7" of wet snow received on April 6 and abundant rainfall throughout the summer and early fall offset summer evaporation. The level of Sweetwater Lake in the preserve recreation area was higher at freeze up than it was ever known to have been before.

(2) Food and Cover. The year was a good one for our big game range. Soil moisture was maintained and the distribution of ample rainfall throughout the growing season was such that an over abundance of succulent forage was produced. Game animals, deer in particular, benefited by entering the winter with a greater reserve of fat. Native grasses, especially the cool season species, did well and produced abundant seed. Acorns, plums, chokecherries, Juneberries and most other early blooming wild berries were in short supply or non existant due to the late frosts.

There was no known loss of grass to virus as was noted in the previous

7-20-45
Up To 11 Inches

Torrent Of Rain Falls At Heimdahl

MADDOCK (Special) — A torrent of rain hit broad sections of Benson and Wells counties in north-central North Dakota Monday afternoon. Unofficial measurements from five communities ran up to 11 inches in Heimdahl, where two rainstorms were reported.

There were no reports of hail. According to Stanley Stiles, editor of the Maddock Standard, "all the crops in the Heimdahl area were just about 100 per cent gone, according to what we saw and got photographs of."

Heimdahl apparently got over nine inches, said Stiles, "and we figure pretty close to 11." He said Heimdahl residents told of running outdoors and emptying their rain gauges "time after time."

He added: "Old timers at Heimdahl tell us that on July 7, 1945, they had a storm that

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brought in nine inches, and this storm far exceeded that one."

At about 10 o'clock Monday evening, Stiles reported that "all roads leading into Heimdahl are either washed out or under water at this minute. No travel is advised in that area."

Also at Heimdahl, a tornado was reported to have touched down in an open field one mile north of town. It reportedly damaged two granaries—shattering one and tipping the other over—both owned by John Math.

Water was reported 10 to 15 feet deep alongside a high railroad grade at Heimdahl. One Great Northern train went through, said Stiles, "but awfully slow."

In other Benson-Wells communities, to the southwest of Devils Lake, these rainfall totals were listed: 2½ inches at Maddock "in a little over an hour," six inches at Wellsburg, five inches at Hamburg, four inches at Harlow, and five inches at Esmond.

Soo Line railroad tracks east of Harlow were reported under water.

The Day After The Deluge

'It Looks Rough,' Says Wells Agent

FESSENDEN (Special) — "It looks pretty rough," were the words of County Agent Le Von Kirkeide in describing the farming situation in northeast Wells county Tuesday, following up to 11 inches of rain the day before.

Kirkeide reported the area deluged by rain was about 15 miles in width, centering in the towns of Heimdahl, Hamberg and Bremen and extending south towards Cathay. He said 11 townships in the northeast part of the county had four inches or more of rainfall.

He said the crops were as flat as possible, but noticed on Tuesday that "It's starting to straighten up a little bit."

The county agent indicated that what is needed is dry weather at moderate temperatures. He said humid warm weather could give rise to several plant diseases.

Kirkeide noted the Heimdahl area had already been saturated with about four inches of rain within the last two weeks before the 11-inch deluge Monday afternoon.

He said the downpour of rain came about a week before the

start of barley harvesting which is "pretty fair acreage" in Wells county.

The numerous washouts and gulleys created by the water will also be tough on farm equipment, according to Kirkeide, as the farmers will have to maneuver through them.

Marlin Hvinden, reporter for the Maddock Standard, said water was receding in most of the area today.

He estimated the crop and road damage was about this way: 60 per cent of the damage in Wells County and 40 per cent in Benson County.

"It is such a big area, it may be a week before damage can be assessed," Hvinden said.

He said persons in the area were out Tuesday cleaning up and making passable roads. Several signs were posted in Wells County during Tuesday indicating roads had wash outs and were impassable. The north-south county road leading into Heimdahl was reported still covered with water at noon Tuesday.

year. For the second year a small amount of leafy spurge was noted adjacent to highway #57 in the big game enclosure. Soil sterilant was applied.

II WILDLIFE

- A. Migratory Birds. A herring gull was noted on April 4. Four Canada geese arrived on March 9, and seven mallards appeared on an open hole on the Sheyenne River on March 10, at the close of a period of thawing weather. However, sub zero temperatures and snow the rest of the month retarded any further migration until early April. Snow and blue geese and small Canadas were noted on April 7, along with mallard, pintail, robins, a mourning dove, and large flocks of crows on April 8; killdeer and scaup on April 11; whistling swan, white fronted geese, shoveler, green-wing teal, American golden eye, American merganser on April 13; redhead, baldpate, gadwall, ring-necked duck, canvas-back and ring-billed gull on April 14, Franklin gull, white pelican, bufflehead, and blue-winged teal on April 18; and the little ruddy duck arrived on May 4.

The display flock was released to Sweetwater Lake on April 12. This lake did not completely open until April 28, more than two weeks later than is usual. The first of five incubating pair was noted on April 26. However, the adverse weather conditions of late May took their toll and only 4 goslings were hatched. These did not live long.

Wood duck again arrived at Sullys Hill and two pair were often seen during May and early June. However, no broods were seen so we assume that any nesting attempts were unsuccessful. All waterfowl production appeared to be poor in this vicinity. Three mallard broods, of which one was from a semi-domestic display flock bird, were the only production noted on the refuge.

Unseasonable snow and cold in May not only had an adverse affect upon early nesting attempts, but this same unseasonable weather delayed planting so that more nesting attempts were probably destroyed by delayed agricultural operations than is usual.

The fall migration was orderly with fewer birds. Mallards, in particular, were down in numbers although refuge areas such as Lake Alice, where the birds had little disturbance, held large concentrations of them. There were fewer mallards during the hunting season than last year, not only due to poor production, but also because of the more orderly migration. In 1964, late September storms and snow in Manitoba pushed huge concentrations down into North Dakota prior to the opening of the hunting season.

Water conditions were also much improved over 1964, and the birds were not as concentrated and the flocks did not appear as spec-

tacular. This lack of concentration of birds also probably helped alleviate heavy waterfowl depredations. Much late seeded, late maturing grain presented a depredations potential following a five or six week rainy period in which harvesting was delayed. Had there been a larger mallard population there would have most certainly been many serious depredation complaints.

The late harvest kept farmers occupied and fewer fields were either burned off or cultivated black. The abundant moisture sprouted much grain in harvested stubble providing a lush, green, succulent carpet of feed for migrating geese as they arrived in the lake region.

Goose hunting was again very good. Although we did not get to make our annual pre-season census this year, it appeared that the birds were here in normal numbers for the opening. Good populations remained until the storms of mid-November when they began to leave. It was thought that peak numbers of geese were not as great as last year, in the lake region. Due to the lack of funds at this station we were unable to make the necessary aerial counts to verify this.

- B. Upland Game Birds. Upland species appeared to have had another poor year in this area. There was little sign of reproduction. On the refuge few of these birds were seen. A lone sharptail was seen on several occasions near our millet patch in Unit Ia. An occasional pheasant and a small covey of Hungarian partridge was also occasionally noted in this area. To date, no wintering sharptails have been noted in the big-game enclosure.
- C. Big-Game Animals. At the start of the period we had thirty-one bison in the big-game enclosure. The herd increased by nine calves during the period and was reduced by five live deliveries from the previous disposal season on March 8. Five more were butchered during the 1965 fall disposal season bringing our total at the close of the period to 30.

The 1965 heifer calves had not been vaccinated, nor the live sales from the 1965 season delivered, at the close of the season. If this cannot be done in the mild, early winter period we prefer to wait for warmer spring weather.

We entered the period with seventeen elk. Six calves were raised. Three elk were butchered and sold during the disposal season and at the close of the period we counted twenty of these animals.

Deer within the enclosure are also estimated to number twenty head. One known winter loss was found last spring. However, evidence of winter loss often goes unnoticed as dogs and foxes soon eat the flesh and carry off most of the bones.

- D. Fur Animals, Predators, Rodents, and Other Mammals. Although a few lynx are still being caught in the Pembina hills, for the second consecutive year, there was no sign of Canada lynx at or in the vicinity of Sullys Hill. It appears that these animals have not generally established themselves in North Dakota following the migration of 1962 when one local trapper caught 29 of these animals.

An occasional mink or raccoon track is seen but they do not seem to be as plentiful as in former years in this vicinity. Muskrat are again becoming common in the area and a rat house appeared on the Preserve this fall. Both grey and fox squirrels appear to be more abundant than last year but rabbit and hare numbers are so low that one can hardly find a track in the snow anywhere in this area.

Red fox are in the area in fair numbers and since Benson County is closed to aerial hunting there are still some with us at the close of the year. Fox tracks are becoming rare in counties open to aerial hunting since the high price being paid for fox has resulted in much hunting. There was one sighting of a grey fox on the Preserve, during the period. Not common in North Dakota, this small fox has always been with us in limited numbers and is occasionally seen on the refuge. Its small tracks can quite often be found in the thick brushy areas of the Preserve.

Our most troublesome four footed predator is the Indian dog. These dogs are all quite large, having doberman, German shepherd, Labrador and other such ancestry. There are almost as many dogs at each Indian home as there are children and they are always hungry. As a result they are constantly harrassing domestic stock, deer, and other wildlife. Dog packs sometimes kill full grown cattle in this vicinity.

A disease, reported to have been distemper, killed some dogs and foxes in the Oberon area during February of this year.

- E. Hawks, Eagles, Owls, Crows, Ravens, and Magpies. The first crows reported were seen on March 7 in the Mayville area (this is miles southeast and in the Red River valley where the season is ahead of us about 10 days). Crows were first seen in this vicinity on March 24 and from March 31 on they were common at Sullys Hill.

The first red-tailed hawk, our common summer resident, arrived April 5, the exact same day as the first 1964 sighting. A lone

osprey, an uncommon visitor, was seen on May 5. Sparrow hawks were first seen April 30. The magpie is a year around resident that is most commonly seen during the winter. It is then often seen feeding on the ofal that remains from animal disposal operations. Eagles sometimes feed in this manner also, and three were here during part of November.

- F. Other Birds. The usual multitude of small birds appeared during the spring migration. The cold, wet, snowy weather of late May was inhospitable to them and quite fatal to the insectivorous species. Most insectivorous birds arrived in early May when high temperatures ranged from 60° into the 80's. The wet snow of May 26 - 27, the lack of insect food due to the cold, and the extreme cold night temperatures apparently annihilated these species.

On the morning of May 28, following the close of the period of cold rain and snow, the woods were strangely silent. Dead birds were found everywhere. Some had taken shelter in refuge buildings such as the barn and recreation area picnic shelters but this did not save them. A search found many individuals of species of swallows, warblers, kingbirds, and flycatchers.

It was reported that some of these birds were examined at the University of North Dakota and that pesticide residues had contributed to their death when fat reserves were called upon to tide them over the cold period.

Mourning doves also apparently experienced a die-off during early summer as farmers in this area reported finding dead doves while working in their fields. Since these doves were being found during the period when grains were being sowed, it is possible that they were finding and eating treated seed grain.

- G. Fish. Fathead minnows were re-introduced into Sweetwater Lake, in the Preserve's recreation area, on June 1. This twelve acre lake had supported a minnow population until the winter of 1963-64 when the lake experienced a complete die-off. The minnows were re-stocked from the Sheyenne River by Mr. Louis Zieman, a temporary employee of this station, who resides in the village of Sheyenne. The few hundred that he put in must have multiplied at a fantastic rate for by mid-summer minnows could be seen almost anywhere and birds, such as gulls, kingfishers and herons, were noted feeding upon them.

III REFUGE DEVELOPMENT AND MAINTENANCE

- A. Physical Development. Following the refuge closure announcement and the resultant uncertainty that ended with Sullys Hill going into a custodial operation, it was decided to concentrate remaining refuge funds and available manpower into repairs to the outer shells of the refuge's ancient buildings. There are 14 buildings, all of frame construction, in the headquarters and nearby recreation area.

Cedar shingle roofs were gone over and poor flashings and shingles were replaced. Shingles on the entire north half of the machine shed were replaced due to rot. All cedar shingle roofs were given two coats of shingle paint made of equal parts of a good grade of barn paint and raw linseed oil with a little drier added. The green trim on all buildings was painted.

All doors and their hardware were examined and adjusted. Rotten wood was replaced. Two doors were replaced and new framing for them installed in the barn.

Windows were all gone over, broken or cracked panes were replaced and all were painted. Rotten sills and casings in the barn and residence No. 2 were replaced. The shop chimney was repaired.

This work would never have been accomplished were it not for the able hands and skilled eye of Mr. Louis Zieman, a temporary employee well versed in carpentry and painting. Mr. Zieman also went over all of the Preserve's old wooden picnic tables repairing, replacing and painting them as well as making up six new ones using commercial metal frames. He set up eight steel fire places and built one large masonry one lined with fire brick. Repaired all play-ground equipment and rebuilt a slide that had been taken down for need of repairs several years ago.

Heavy rainfall caused much road damage, especially to the steeper slopes and some time was spent repairing washouts and trying to improve road drainage systems. Ditches were widened and flattened with log check dams and riprap added and, where ever possible, drainage water was diverted from the road ditches into the woods. Due to the type of terrain our roads are very difficult to maintain.

- B. Plantings.

2. Trees and Shrubs. Fifty American elm trees were set out in the refuge tree nursery for future transplanting in the recreation and headquarters areas. Fifty spruce and pine were transplanted from the nursery to the steep side hills along Highway 57 in an effort to beautify and stabilize these slopes adjacent to our fence. How-

ever, heavy rains caused much erosion and washed out most of these trees. Five large elm ranging in diameter from 3 to 5 inches and from 12 to 15 feet in height were transplanted to the playground adjacent to the west picnic shelter, in October.

4. Cultivated Crops. Thirty-two acres of flax was seeded as a nurse crop for alfalfa. The flax was laid down by the storms and difficult to harvest and some loss was sustained; however, it yielded 14 bushels to the acre. The alfalfa seeded in it did not appear as thick as we would like it but nevertheless would seem to be a fair stand.

Sixteen acres of millet seeded with sweet clover made only 19 bushels to the acre. We lost some of the millet due to a delay between swathing and combining caused by much rain, but did not expect a heavy yield due to the poor soil it was planted on and the cooler than normal growing season. The plow down sweet clover planted with the millet produced a very thick stand of rank growth with some blossoms produced in this, its first, year.

Thirty-eight acres of oats seeded as a nurse crop for a native grass mixture produced 35 bushels to the acre. Here, as with the millet, there was some loss of grain during the delay between swathing and harvesting that was caused by inclement weather. Some grain was in the swath for six weeks. Parts of the field were green with sprouting swaths. The grass mixture of slender wheat, western wheat, switch and green needle did not appear to do too well. Even though we thought conditions ideal for grass, the stand was thin and we are apprehensive as to what will be in this field in the coming year.

Another factor contributing to cultivated crop loss is the Indian pony which roams free in small groups and generally finds the best feed available. This we will have to put up with until our fence building program is completed. At present, this is being held up due to the lack of funds.

- D. Control of Vegetation. The only thing that we have to report is placing of soil sterilant on leafy spurge. The patches found this year were very small and adjacent to Highway 57. Last year we found the first patch on refuge land. It, too, was small and adjacent to Highway 57 and within the road right-of-way. Spot treatment of it must have eliminated it for it did not appear this year. This weed can be found in abundance on nearby Indian lands where no attempt is being made to control it.
- F. Fires. We had no refuge fires and fewer fires in the vicinity this year. The Indian practice of spring and fall burning was hampered by the weather. However, this same weather caused a rank growth of grass that provides a potential fire hazard for next spring, when the burning season arrives.

IV RESOURCE MANAGEMENT

- A. Grazing. The abundance of rainfall throughout the grazing period provided for good early and late plant growth on our grazing lands. The cooler temperatures and abundant moisture of this season were particularly favorable to native grasses. Cool weather species, such as the needle grasses, were particularly noticeable and made a more rank growth than is usual. Needle and thread was more abundant on nearby Indian lands than it has been in many years. Some Indian "fortys" were nearly solid with it.

Special use permit No. 25700 was issued to Marvin Jabs, who was again interested in grazing our 160 acre unit. As in the past, deferred grazing was practiced and Mr. Jabs' cattle were not turned in until July 1. Deferred grazing and moderate stocking have visually improved this quarter section of grassland. Where once annual weeds and poorer grass caused by the overgrazing of Indian Bureau leasees, grew, there is now a fine stand of mixed native grasses and forbes plants.

The only other refuge grazing was that of the Refuge Manager's cow. Twelve stands of bees, a project of the manager's eldest son, were also authorized by the same special use permit.

- B. Haying. Although the Refuge harvested more than enough hay, two phenomena mentioned above, abundant moisture and below average temperatures, actually caused a hay shortage on the farms and ranches in this area. Tame grasses, such as brome and quack, did not respond to the weather as the natives did and yields were light. Alfalfa growth was not as great, also due to the cooler weather. Slough hay was not cut or when cut was soon under water following the plentiful precipitation of July through September. These same rains reduced the quality or completely spoiled much hay in this vicinity.

Refuge haying operations started in late June and, due to the weather, extended into late August. Permittee Harold Belcher, who was the first to start, was able to harvest 80 acres of brome grass without rain damage. All other refuge hay suffered rain damage of varying degree. Mr. Belcher's hay unit was once an alfalfa-brome stand that winter killed during the winter of 1961-62, as did all alfalfa in this area. At the close of the summer it was again an alfalfa brome stand. Volunteer alfalfa growth was amazing! All remaining brome lands that had been in alfalfa-brome and a native wheatgrass stand that was planted on former alfalfa-brome land had heavy volunteer alfalfa growth.

Our best yielding hay was a new forty acre native grass seeding that is predominantly slender wheatgrass at this time. About 1.2 ton per acre was harvested from this land at one cutting. Adjacent alfalfa land did not make quite one ton per acre with two cuttings harvested.

It was interesting to note that where fertilizer was applied to this slender wheatgrass, a heavy re-growth was made that headed out and matured seed. Adjacent unfertilized strips made little re-growth following cutting and did not attempt to flower and produce seed.

Sixteen tons of loose, stacked hay of poorer quality harvested from hay unit II of refuge tract Ia was sold to Mr. Donald DeVany at \$10.00 per tone or \$160.00, under Special Use Permit No. 1. Mr. DeVany is one of the cooperators that harvested the hay and this hay was not needed and was also sold to facilitate share division.

- C. Fur Harvest. None at Sullys Hill. A brief discussion of the fur harvest on the easement refuge can be found following the close of this report.
- D. Timber Removal. Free use wood permits were issued to Pat White, Pierre Culbertson, and Louis St. Claire, who gathered a few trunk loads of dead wood along high 57. This was the only authorized timber removal during the period. There has been some unauthorized cutting of green trees for firewood and fence posts by persons unknown.
- F. Other Uses. Demand for buffalo was probably a little slower with demand for elk much greater than the supply. Private breeders are now selling buffalo at prices below ours. This has slowed demand somewhat for these animals. As in the past, sales were limited to organizations and no animals were sold to individuals for home use.

No butchering was done until November. There are reasons for this. We must wait until the bulk of work on the waterfowl refuges is over. We like to have the animals take advantage of the rapid fall gains that are experienced during the cool weather following fly season. Since we have no artificial cooling facilities we must wait until outside temperatures will suffice for butchering and storing the field dressed animals until picked up by the purchasers. We like to butcher in the corral, if possible, so that there is no possibility of a mortally wounded animal running off to be lost in the woods as has happened in the distant past.

By waiting until cold weather the buffalo can be baited into the corral for butchering, and sometimes part of our elk and deer quota, also. We like to have snow to hunt down the deer and elk. Following snow they can be found easier and there is less chance of a cripple being lost.

Six surplus deer were again donated to the North Dakota School for the Deaf for use in their school lunch program.

The folbwing sales of big-game animals were made during the period:

ELK

<u>Buyer</u>	<u>Quantity</u>	<u>Delivered</u>	<u>Receipts</u>
Lehr Wildlife Club	1 bull	11/5/65	\$130.00
Harlow Wildlife Club	1 bull	11/3/65	130.00
Warwick Wildlife Club	1 bull	12/2/65	<u>130.00</u>
Total Elk Sales			\$390.00

BUFFALO (Butchered)

<u>Buyer</u>	<u>Quantity</u>	<u>Delivered</u>	<u>Receipts</u>
Pleasant Lake Wildlife Club & Wolford Wildlife Club	1 bull	11/4/65	\$260.00
Valley City Lions Club	1 cow	12/3/65	260.00
Minot Knights of Columbus	1 bull	11/4/65	260.00
Harvey Vets Club	1 bull	11/4/65	260.00
Esmond Wildlife Club & Watford City Chamber of Commerce	1 bull	11/21/65	<u>260.00</u>
			\$1,300.00

BUFFALO (Live)

<u>Buyer</u>	<u>Quantity</u>	<u>Delivered</u>	<u>Receipts</u>
George Torrison, Warwick, N.D.	5 heifers	3/8/65	<u>\$1,000.00</u>

Total Receipts of all Animal Sales \$2,690.00

Refuge Receipts Summarized

Special Use Permits

Grazing	\$ 157.50
Hay Sales	160.00
Bee Pasture	<u>1.20</u>

\$ 318.70

Surplus Animal Sales

Elk (butchered)	\$ 390.00	
Buffalo (butchered)	1,300.00	
Buffalo (live)	<u>800.00</u> ?	
	2490.00	
		<u><u>\$2,690.00</u></u>

Total Refuge Receipts	\$3,008.70
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VI PUBLIC RELATIONS

- A. Recreation Use. Public use of the Preserve's recreation area was somewhat less than normal with 44,000 use days estimated.

Outdoor recreational activity, especially picnicking, would probably have been much greater this year had it not been for the abnormally cool and wet summer and the late spring. Mosquitoes were more numerous than in the last ten years. Snow and cold weather in late May, following the spring influx of insectivorous birds, reduced the summer populations of these birds considerably. Some species were almost entirely eliminated. With this natural check on the mosquito population gone, these insects fed freely on the visitors and, I am sure, that this discouraged many from their outings.

Due to the announced closure and the lack of operating funds provided after we were placed on a custodial basis, it was necessary to curtail services to the public. The big-game tours were discontinued early in the summer and only about 900 people were toured whereas usually this amounts to several thousand.

Many people drive in to watch the display flock on the lake, admire the trees and natural beauty of the woods and hills, etc. The closure publicity seemed to stimulate this form of visitor use and many people drove in and about the area on these brief visits.

The mild November and December weather was fine for ice skating and some of the local young people came to the recreation area lake for this form of outdoor recreation. However, with artificial ice under a roof, in Devils Lake, outdoor skating in the cold is no longer as popular as it once was.

There was little berry picking this year. May frosts got the Juneberries which are the most popular wild berry here. Very few people harvest wild chokecherries, plums, buffaloberries, etc. Plums were in short supply but there were ample chokecherries for those who wished to make a batch of jelly - few did.

- B. Refuge Visitors. The following official visitors were recorded during the period.

<u>Date</u>	<u>Name and Organization</u>	<u>Purpose of Visit</u>
1/12	Agent Blazevic, FWS	Courtesy call
1/12	Agent Jensen, FWS	Courtesy call
1/15	D. Perkuchin, FWS	Water Mgmt - Lake Ardoch

<u>Date</u>	<u>Name and Organization</u>	<u>Purpose of Visit</u>
1/20	E. Henschel, USDA	Vaccinate buffalo calves
1/21	S.C.Brashears, FWS	Public relations
2/15	E. Sanderson, NDG&F	Sullys Hill closure
2/18	R. Rollings, NDG&F	Sullys Hill closure
3/2	V. Blazevic, FWS	Law enforcement problem
3/5	D. McGlauchlin, FWS	Canada goose transfer
3/10	V. Blazevic, FWS	Elk poaching
3/18	V. Blazevic, FWS	Worked on his official vehicle in Refuge shop
3/18	E. Sand, BIA Land Operation	Sullys Hill closure
3/30	D. Perkuchin, FWS	Pick-up fence posts
5/18	J. Winship, FWS	Easement refuge pair counts
5/20	R. Corwine, Private consultant	BIA recreation plan
7/18	Clair Rollings, FWS	Refuge inspection
7/18	E. Smith, FWS	Refuge inspection
7/27	E. Doeling, FWS	Tour Lake Alice watershed
7/28	J. Winship, FWS	Easement brood count
9/14	Dick Strait, PS	D.L. recreational development
9/30	H. Jensen, FWS	Law enforcement
10/2	H. Jensen, FWS	Law enforcement

- C. Refuge Participation. The refuge manager continued to be active in the Devils Lake Rotary Club.

During June, Rotarians of District 554 hosted Rotarians of British District 103, and the refuge manager had the privilege of entertaining Mr. Charles Lambert of Killingworth, Newcastle-upon-Tyne, England. Rotarian Lambert had hosted the refuge manager and his wife for ten wonderful days in northern England during April of 1964, when the initial trip of the exchange was made (see our 1964 report).

Mr. Lambert was well versed on the use of natural resources. He was quick to notice poor land management such as is often associated with our large farms. Visible signs of poor husbandry, such as erosion scars, hill tops bare of soil, strip mine waste, etc., seemed to alarm him and he often mentioned them and compared our present day land use and abuse to England's of the 16th century.

We can understand his concern for while we were visiting in his homeland we were amazed at the care and respect given the top soil and the legal safeguards to insure that this care was given. We were also amazed at the average Englishman's love for the out-of-doors and his knowledge of nature.

One of the "highlights" of his visit was a helicopter tour of this area, provided courtesy of the North Dakota National Guard.



SHOWING THE SIGHTS TO A BRITISH VISITOR—Some of the features of Sully's Hill National Game Preserve were shown Monday to Charles Lambert, a visiting Rotarian from England, by preserve manager John Bauman (kneeling). Bauman was Lambert's host during a four-day stay in the Devils Lake area. Listening to Bauman's description were (from left) Rotary president Merle Clemenson, Lambert, and club president-elect L. Q. Perkins. They and a number of Rotarians and their wives gathered Monday evening for a barbecue in Lambert's honor. He left the Lake Region today. (Journal Photo)

* * *

Here Under Rotary Club Exchange Program

'Welcome...Out Of This World,' Says Britisher In Lake Region

By DICK BLAIR
Journal Staff Writer

"The welcome has been out of this world," said visiting Englishman Charles Lambert in describing the reception he has received here during a four-day visit to Devils Lake.

Lambert, who was in Devils Lake on an exchange visit between British and American Rotarians, said: "I just can't describe how kind and friendly

all Americans are. I've met them in every station of life."

The visiting Rotarian was the honored guest at a barbecue picnic held at Sully's Hill National Game Preserve Monday night, arranged by the Devils Lake Rotary Club. There amidst the nature of the Lake Region, Lambert said, "Right around Devils Lake is the most beautiful scenery."

A year ago, John Bauman,

past president of the Devils Lake Rotary club, visited Lambert in England, and this year Lambert and several other English Rotarians returned the neighbor-to-neighbor visit which is part of the Rotary program for international understanding.

Lambert left Tuesday for Custer, S.D., after his four days here. Before coming here, he visited four days with Rotarians at Mankato, Minn.

Among his impressions are

that Americans are driving on the "wrong side of the road," and that the roads are very straight. In England, he reported the roads are extremely winding.

Lambert said, "It worries me that I see so much soil erosion here." He said in England great care is taken with the soil and especially with the top soil. Recognizing there is a great deal of soil and land here, Lambert said he does feel Americans should begin to protect it. He suggested a "massive" tree planting program—numbering in the millions of trees—would aid greatly in conservation of the top soil and prevention of erosion.

Lambert's occupation is that of a contractor. He constructs tennis courts, golf courses and does other landscaping projects.

One of Lambert's observations was that in Minneapolis, Minn., 20 per cent of the land was used for buildings and 80 per cent for parking. In England he said it would be the exact opposite, with 80 per cent of the land occupied by buildings. Other differences noted are the large number of frame houses in America. In England the houses are made of brick with roofs of slate and tile. The spread-out effect of building was noted in the United States as contrasted to the utilization of valuable space in densely populated England.

Other highlights of his visit to Devils Lake included meeting "every Rotarian in the Devils Lake vicinity," a special trip to the International Peace Gardens in the Turtle Mountains and meeting his namesake Charles Lambert, a member of the Sioux Indians, and his wife at Fort Totten. "It was delightful to see the expressions on their faces," he said. He also took a helicopter tour over the city of Devils Lake.

In England, Lambert lives in Killingworth Hall — an ancient house 300-400 years old — located in the village of Killingworth, which has a population of about 200 persons. Killingworth is a suburb of Newcastle.

Lambert emphasized again and again the great welcome which he said has been given him here by the Devils Lake Rotarians.

With a happy smile, he said the Americans "make good coffee, but they are having difficulty with tea."

Mr. Lambert and the refuge manager and his wife were invited to be honored guests at Camp Grafton's Governor's Day and, as such, were allowed to sit in the Governor's reviewing stand for the morning's festivities. Mr. Lambert enjoyed this and his short chat with North Dakota Governor William L. Guy very much.

The announced closure of Sullys Hill in April was the cause of much concern among local people and the refuge manager was asked to speak and show slides before more than the usual number of groups. Most people just could not understand why this old establishment should be given up by the Federal Government in view of the President's announced policy of acquiring and preserving national areas.

Efforts of the Devils Lake Sioux tribe to acquire the land also alarmed many people for the Indian's methods of exploiting and desecrating the land are well known to most local people.

The refuge manager again participated in the Boy Scout Camporee held at nearby Camp Grafton. He also met with the Benson County Commissioners to discuss refuge activities and near the close of the period to present the check for shared revenue, which amounted to \$832.36 this year.

At Devils Lake's second annual gladiolus and flower show the refuge manager's wife created quite a sensation when, of six arrangements entered, she won three first, two seconds and one third prize ribbons. Her six outstanding floral entries were all composed of native, wild flowers found at Sullys Hill. Many people remarked on the beauty of these native plants that were once common to the prairies, as compared to the other entries which were designed solely of domestic plants found only in cultivated gardens.

Mrs. Bauman had the right background for entering in this floral show since she is the daughter of a florist and has attended several floral design schools. We hope that she will do as well next year, not only in earning prize ribbons but also in calling the attention of people to the beauty that can be found in nature that is fast being erased by the plow, the cow, and in recent years, a flood of herbicides.

- E. Violations. Violations by Indian people at Sullys Hill continues to be a problem and apparently one that little can be done about. Most of our problems originate with the Indian, his ponies, or his dogs, and range from drunk and disorderly conduct, through speeding, trespassing, trash dumping, hunting, trapping, haystack destruction, wildlife harassment by dogs and crop damage by ponies. Twice during the year rabbit snares were gathered up on refuge lands.

On December 14, three Indian youths, with guns, were observed leaving the big-game enclosure by the refuge manager's wife who recognized one of them. The refuge manager "back tracked" them and found where they had attempted to take a buffalo. The only visible damage was a lame animal that may, or may not, have been shot. However, the buffalo were quite wild for several days thereafter. These youths were prosecuted in tribal court, and although they have a history of violations, received six months probation.

Evidence of the illegal hunting of our big-game animals comes to our attention in various ways. This year we were informed by Lehr Wildlife Club that one of the people partaking of their annual feed bit into three buckshot pellets in his elk meat. Local Indian people often hunt deer with buckshot. The cow elk killed last year had both buckshot and a hex head bolt in her head. The shotgun shell containing buckshot is sometimes altered with a hex head bolt waxed to the end.

Two late shooting cases, three cases of hunting on a refuge, two cases of attempting to take swan and one case of over limit on pintails were apprehended by refuge personnel and prosecuted during the period. These waterfowl violations occurred on or near our easement refuges.

- F. Safety. We have no accidents to report for the period. Safety topics covered were: Fire prevention; Pesticides and Toxic materials; Defensive Driving; and, Safety in Work Planning.



Snare Set In Trail On Refuge



Snare Gathered From Refuge Lands

Still Unit Of Refuge System, Udall Says

Sully's Hill Park To Continue

Sen. Quentin N. Burdick, D-N.D., was notified today by Secretary of the Interior Stuart Udall that Sully's Hill National Game Preserve, on the south shore of Devils Lake, will be continued as a unit of the national wildlife refuge system.

Sen. Burdick termed the decision "welcome news for the thousands of North Dakota citizens who had expressed concern for the area and a desire that it continue as a part of the refuge system." He said retention of the preserve as a wildlife refuge would guarantee its capacity as a tourist and recreation area visited by more than 40,000 persons annually.

Earlier, Rep. Mark Andrews, R-N.D., had reported receipt of a letter from Secretary Udall in which Udall assured him that "there is no intention to relinquish this land unless it remains in public ownership and continues to serve the public in much the same manner as it is now doing."

"To date, there have been no negotiations for releasing the facility," Udall continued. "In the interim it is our intention to maintain the status of the preserve, but it may be necessary to reduce our operations. Meanwhile the facilities will be open for public use, although the services may be reduced."

The federal government had announced the area might be disposed of, and the state legislature passed a resolution urging retention of the site as a public area.

Udall stated that "budgetary limitations currently imposed" had caused "reevaluation of Sully's Hill and other areas under the jurisdiction of the Bureau of Sport Fisheries and Wildlife looking toward the reduction of management activities."

Andrews stated "It is imperative that Sully's Hill be a recreational area because of the great benefit that all the people will derive from it."

"Perhaps we should begin to see what can be done about

establishing an Indian trading post for Indian handicraft in the future on land adjacent to Sully's Hill," Andrews said. "This would provide an opportunity for the people of the Fort Totten reservation to have an outlet for their handicraft and would enhance the over-all value of Sully's Hill."

Sully's Hill National Game Preserve is administered by the Bureau of Sports Fisheries and Wildlife. Management of the area is concerned principally with herds of buffalo, elk, white tail deer and a wide variety of other game, birds and mammals.

About 700 acres of the 1,674-acre preserve constitute a big game enclosure for the larger mammals. It also includes a 66-acre picnic area surrounding a small lake.

Sen. Burdick said now that retention of the preserve is guaranteed, the area should become an even greater attraction for public recreation when Devils Lake is restored as part of the Garrison Diversion project.

NORTH DAKOTA EASEMENT REFUGES - DISTRICT #2

BUFFALO LAKE

ROCK LAKE

BRUMBA LAKE

SNYDER LAKE

JOHNSON LAKE

SIBLEY LAKE

LAC AUX MORTES

SILVER LAKE

LAMBS LAKE

STUMP LAKE

LITTLE GOOSE

WOOD LAKE MARSH

PLEASANT LAKE

Habitat Conditions

1. Water. All snow left the easement district with the thawing temperatures of March 5 - 10. Some rain and wet snow fell during the April 3 - 4 period. The amount was insignificant at the Preserve. East and south of us 3 inches of wet snow was received and provided some beneficial run-off to Little Goose, Johnson Lake, Lambs Lake and Sibley Lake Refuges. The latter two were about dry and greatly in need of this run-off water.

On April 6, seven inches of wet snow fell at the Preserve and a snow survey showed that from 2.75 inches to 7 inches was received to the north on the Lake Alice watershed. This snow contained from .55 to 1.15 inches of moisture at the various sampling stations on the watershed. It did not fall as far west as Pleasant Lake but tapered off to nothing in the vicinity of Leeds. Run-off from this snowfall exceeded our expectations. Run-off conditions were ideal. Sub-zero late March temperatures plus warm rain and temperatures following the storm, produced a fast run-off that did not soak in.

The Lake Alice outlet earth plug was topped on April 19 and water began to spill into the dry bed of Lake Irvin, shattering the dreams of adjacent farmers who had hoped to again harvest a bumper crop there. Rains on this watershed during the May 5 - 6 period were heavy and kept the coulee running. Heavy rains in Rolla area on July 20, when crops were nicely headed, sparked the cry of "flood" at Lake Alice. They also caused an investigation of the watershed by the Corps of Engineers and our Service. This "flood" arrived at Lake Alice Refuge at about noon on July 27 and contributed to the filling of Lake Irvin. Although there was a great outcry concerning possible crop damage prior to harvest this observer could find none with the exception of grain planted in the natural coulee bottoms. The water stayed in the coulees and, retarded by abundant vegetation, flowed down to the lakes in a slow and orderly fashion.

On July 30 and again on July 31, we bowed to local pressures and removed remaining portions of the earth plug at the outlet to Lake Alice for it was contended that they were greatly impeding the flow of water and would surely add to the "flooding of cropland". The latter never materialized.

September rains kept the Mauvais Coulee flowing and water was actually flowing out of Lake Irvin under the ice, following freeze up. Both lakes had equalized their levels after reaching an elevation of 1,443.04 during mid-October and were at 1,442.96 by November 13, following freeze up.

As can be seen from the accompanying table, water conditions for all easement refuges greatly improved during the period and many lakes were at spillway level at the close. A much brighter and more promising picture than we had a year ago at this time.

Emergency Conference Scheduled

Rolla Flooded By Torrential Rain

By The Associated Press
Heavy rain and hail pelted crops and roads in several sections of North Dakota Monday and Tuesday.

Torrential rain battered the Rolla area late Tuesday, flooding storm sewers and leaving water standing in many basements of downtown business places.

Part of Rolla's main street was under water after the 2 1/2 inch downpour in a 24 hour storm. The Fire Department's pumper unit was used to clear flooded basements.

The storm, beginning about 10 p.m. came on top of a 1 1/2 inch rain Monday. Precipitation since May 1 now measures 12.6 inches, according to weather observer Les Dewing.

Field flooding was reported extensive in the area from Rolla east to Langdon. The country around Hansboro, 20 miles northeast of Rolla, apparently was spared further severe flooding, but still was suffering from the effect of a hailstorm that wiped out crops in places about 10 miles last Friday.

Flood Threatens In Chain Lakes Region

Runoff waters from last week's heavy rains in Towner county which pose a threat of extensive crop damage to farmers in the Chain Lakes area has prompted a conference Wednesday to consider emergency measures.

Milton R. Young, R-N.D., announced Monday in Washington, D.C., that in response to an appeal for help that he requested a representative of the Corps of Engineers from the St. Paul district office to meet with county commissioners of Ramsey and Towner counties, tour the area and outline a possible plan for action. The meeting will meet at Maza at 10 a.m. Wednesday to start the tour. Also present will be members of the Chain Lakes Management District. Engineer Milo Hoisveen, County Agent Tom Reff, also announced that the Bureau of Sports Fisheries and Wildlife has been alerted to the expected rise in Lake Alice refuge. A representative of the Bureau was in the area today or

Wednesday.

Young said the present problem is due to a heavy runoff from excessive rains which already has started down Mauvais coulee and tributary coulees, heading toward a possible overflow in the Lake Alice bottleneck.

The senator said the area has suffered heavy loss from flooding in other years, notably in 1952 when over 10,000 acres were flooded but never has the threat been so serious when the crop is nearly ready to harvest. The crest of the flood is expected to arrive at Lake Alice in about a week. Both Lake Alice and Lake Irvine are nearly filled from earlier runoff.

The rain, estimated as up to 11 inches in a week in an area north of Egeland, flooded haylands and brought a request from the Towner county board of commissioners to declare it a disaster area to qualify for haying of Soil Bank lands. The state disaster committee is expected to meet today to consider the request.

Waterfowl

Breeding pair counts were made on May 19, by the refuge manager and pilot-biologist Winship. Total breeding pair and lone males for the easement district continued their downward trend. They were down 30 percent from last year. On the other hand coot seen at this time increased ten-fold over 1964. These findings are expressed in accompanying tables II and III.

Aerial brood counts were made on July 27 - 28 by pilot-biologist Winship and the refuge manager. These counts were of 18 percent from 1964 and continued the downward trend as can be seen in table IV.

There again appeared to be a complete lack of early broods, indicating a failure of early nesters. Considering weather conditions, this likely happened. The sample ground brood counts and transect were not made due to the curtailment of operations, so we do not have figures from them for comparison. However, the downward trend in breeding pair and broods seen appeared to be confirmed by other local observers.

Fur Harvest.

Following two good years of production on Lake Alice, accompanied by a closed season, muskrat populations recovered and moved out to repopulate the whole Mauvais Coulee watershed during the spring runoff of 1965.

A state wide open season on these animals was held during the November 15 - December 12 period. Free use trapping permits were issued to 16 refuge trappers. All but two of these reported their catch and a summation of catch and monetary value is presented below. Lake Alice muskrats are reported by fur buyers to be larger and of better quality than those found elsewhere in this area and this is reflected in trappers reports of prices received.

LAKE ALICE (13 trappers)

	<u>Number</u>	<u>Total Receipts</u>
Muskrat	4,550	5,024.80
Fox	2	10.00

WOOD LAKE (1 trapper)

	<u>Number</u>	<u>Total Receipts</u>
Muskrat	14	11.90
Mink	6	90.00
Fox	3	19.50

BUFFALO LAKE (1 trapper)

	<u>Number</u>	<u>Total Receipts</u>
Fox	2	15.00
Mink	1	10.00
Beaver	2	24.00
Raccoon	5	15.00
Badger	2	4.00

TABLE I

SPRING AND FALL RECORD OF EASEMENT REFUGE WATER LEVELS OF 1965

<u>Refuge</u>	<u>Water depth freeze up 1964</u>	<u>Water depth spring of 1965</u>	<u>Water depth freeze up 1965</u>
Buffalo Lake	75"	75"	75"
Brumba Lake	25"	41"	41"
Johnson Lake	49"	67"	74"
Lac Aux Mortes	13"	48"	48"
Lambs Lake	43"	45"	55"
Little Goose	100"	116"	116"
Pleasant Lake	25"	38"	38"
Rock Lake	17"	46"	64"
Snyder Lake	80"	122"	131"
Sibley Lake	10"	32"	31"
Silver Lake	20"	22"	25"
Wood Lake Marsh	76"	76"	76"

TABLE II
COMPARISON OF BREEDING PAIR
AND
LONE MALES BY REFUGE

<u>Refuge</u>	<u>1963(5/16)</u>	<u>1964(5/27)</u>	<u>1965(5/19)</u>
Buffalo Lake	64	76	36
Brumba Lake	37	28	23
Johnson Lake	142	51	55
Lac Aux Mortes	419	424	229
Lambs Lake	29	21	26
Little Goose Lake	16	18	9
Pleasant Lake	136	71	31
Rock Lake	154	99	102
Snyder Lake	87	38	59
Sibley Lake	104	55	67
Silver Lake	185	71	30
Wood Lake Marsh	<u>17</u>	<u>10</u>	<u>9</u>
Easement District Totals	1,390	962	676

TABLE III

TOTAL COOTS

Seen at time of aerial brood count

<u>Refuge</u>	1963(5/16)	1964(5/27)	1965(5/19)
Buffalo Lake	7	19	30
Brumba Lake	40	8	12
Johnson Lake	76	2	24
Lac Aux Mortes	335	60	940
Lambs Lake	-	1	48
Little Goose Lake	20	-	8
Pleasant Lake	93	3	120
Rock Lake	-	3	318
Snyder Lake	-	24	90
Sibley Lake	50	-	32
Silver Lake	25	45	16
Wood Lake Marsh	<u>-</u>	<u>-</u>	<u>2</u>
Totals	946	165	1,640

A ten-fold increase in coot!
1965 over 1964

TABLE IV

EASEMENT REFUGE AERIAL BROOD COUNTS 1961-1965

<u>Refuge</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>	<u>1964</u>	<u>1965</u>
Lac Aux Mortes	26	52	65	40	58
Buffalo Lake	33	7	19	17	7
Brumba Lake	8	12	9	8	3
Johnson Lake	34	44	33	19	4
Lambs Lake	11	3	3	8	4
Little Goose	4	2	1	4	0
Pleasant Lake	9	9	24	9	8
Rock Lake	132	37	24	18	13
Snyder Lake	6	15	15	4	5
Sibley Lake	51	26	30	10	5
Silver Lake	17	9	9	3	7
Wood Lake Marsh	<u>4</u>	<u>2</u>	<u>3</u>	<u>2</u>	<u>2</u>
TOTALS	335	218	235	142	116

SIGNATURE PAGE

Submitted by:

John K. Bauman
(Signature)

Date: March 9, 1966 Refuge Manager
(Title)

Approved, Regional Office:

Date: March 15, 1966

[Signature]
(Signature)

Act. Asst.

Regional Refuge Supervisor